

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13 (canceled).

Claim 14 (currently amended): An optical sheet comprising a plurality of cylindrical-lens elements which have a high order aspheric face and are provided successively in a row on one of principal faces of said optical sheet,

wherein if a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical-lens elements, a cross sectional shape in the XZ plane of each of said cylindrical-lenses elements satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)}) + AX^4 + BX^5 + CX^6 + \dots$$

where R is the radius of curvature of a distal end vertex, K is a conic constant, and A, B, C, ... are aspheric coefficients.

Claim 15 (previously presented): The optical sheet according to claim 14, wherein the radius R of curvature, the conic constant K and the aspheric coefficients A, B, C, ... satisfy the following numerical ranges:

$$R \geq 0$$

$$K < -1$$

$$0 < A < 10^{-3}$$

$$0 \leq B, C \dots < 10^{-3}.$$

Claim 16 (previously presented): The optical sheet according to claim 14, wherein the radius R of curvature, the conic constant K and the aspheric coefficients A, B, C, ... satisfy the following numerical ranges:

$$0 < R \leq 72$$

$$-15 < K \leq -1$$

$$R - K \geq 5$$

$$0 \leq A, B, C \dots < 10^{-3}.$$

Claim 17 (previously presented): The optical sheet according to claim 14, wherein the radius R of curvature, the conic constant K and the aspheric coefficients A, B, C, ... satisfy the following numerical ranges:

$$0 < R \leq 30$$

$$-15 < K \leq -1$$

$$R - K \geq 5$$

$$0 \leq A, B, C \dots < 10^{-3}.$$

Claim 18 (currently amended): The optical sheet according to claim 14, further wherein comprising convex portions having a height equal to or greater than $0.20 \mu\text{m}$ from an average central plane are on the principal face side opposite to the principal face on which said cylindrical-lens elements are provided, wherein the density of said convex portions is equal to or higher than $70 / \text{mm}^2$ but equal to or lower than $500 / \text{mm}^2$.

Claim 19 (currently amended): The optical sheet according to claim 14, further comprising convex portions having a height equal to or greater than $0.20 \mu\text{m}$ from an average central plane on the principal face side opposite to the principal face on which said ~~cylindrical~~ lens elements are provided, wherein the average distance between said convex portions is equal to or greater than $50 \mu\text{m}$ but equal to or smaller than $120 \mu\text{m}$.

Claim 20 (currently amended): The optical sheet according to claim 14, further comprising convex portions on the principal face side opposite to the one principal face on which said ~~cylindrical~~ lens elements are provided, wherein said convex portions are provided such that, in a state wherein said ~~cylindrical~~ lens elements are not formed, the cloudiness degree of said optical sheet is equal to or lower than 60%.

Claim 21 (currently amended): The optical sheet according to claim 14, further comprising convex portions on the principal face side opposite to the one principal face on which said ~~cylindrical~~ lens elements are provided, wherein said convex portions are provided such that, in a state wherein said ~~cylindrical~~ lens elements are not formed, the cloudiness degree of said optical sheet is equal to or lower than 20%.

Claim 22 (currently amended): The optical sheet according to claim 14, further comprising convex portions on the principal face side opposite to the one principal face on which said ~~cylindrical~~ lens elements are provided, wherein the ten-point average roughness SRz of said convex portions is equal to or higher than $1 \mu\text{m}$ but equal to or lower than $15 \mu\text{m}$.

Claim 23 (currently amended): The optical sheet according to claim 14, further comprising convex portions on the principal face side opposite to the one principal face on which said ~~cylindrical~~ lens elements are provided, wherein the height of said convex portions at which the convex portion area occupies 1% is equal to or greater than $1 \mu\text{m}$ but equal to or smaller than $7 \mu\text{m}$.

Claim 24 (currently amended): The optical sheet according to claim 14, further comprising convex portions on the principal face side opposite to the one principal face on which said ~~cylindrical~~-lens elements are provided, wherein the average inclination gradient of the face on the side on which said convex portions are provided is equal to or lower than 0.25.

Claim 25 (currently amended): A backlight, comprising:

a light source for emitting illumination light; and

an optical sheet for raising the directivity of the illumination light emitted from said light source, said optical sheet comprising ~~said optical sheet has~~, on the illumination light emission side thereof, a plurality of ~~a plurality of~~ cylindrical-lens elements which have a high order aspheric face and are provided successively in a row;

wherein if a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said ~~cylindrical~~-lens elements, a cross sectional shape in the XZ plane of each of ~~said cylindrical-lenses~~ elements satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)}) + AX^4 + BX^5 + CX^6 + \dots$$

where R is the radius of curvature of a distal end vertex, K is a conic constant, and A, B, C, ... are aspheric coefficients.

Claim 26 (currently amended): A liquid crystal display apparatus, comprising:
a light source for emitting illumination light;
an optical sheet for raising the directivity of the illumination light emitted from said backlight, said optical sheet comprising, on the illumination light emission side thereof, a plurality of lens elements provided successively in a row; and
a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;
~~said optical sheet has, on the illumination light emission side thereof, cylindrical lens elements which have a high order aspheric face and are provided successively in a row;~~
wherein if a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical-lens elements, a cross sectional shape in the XZ plane of each of said cylindrical-lenses elements satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)}) + AX^4 + BX^5 + CX^6 + \dots$$

where R is the radius of curvature of a distal end vertex, K is a conic constant, and A, B, C, ... are aspheric coefficients.

Claim 27 (new): The optical sheet according to Claim 14, further comprising convex portions provided on the principal face side opposite to the principal face on which said lens elements are provided.

Claim 28 (new): The optical sheet according to Claim 14, wherein the optical sheet comprises an integrated molded article formed by thermal transfer.

Claim 29 (new): The optical sheet according to Claim 14, wherein the optical sheet comprises a transparent thermoplastic resin.

Claim 30 (new): The optical sheet according to Claim 29, wherein the transparent thermoplastic resin includes at least one release agent in an amount between about 0.02% and 0.04% by weight of the transparent thermoplastic resin.

Claim 31 (new): The optical sheet according to Claim 29, wherein the transparent thermoplastic resin includes at least one ultraviolet absorbing agent or light stabilizer in an amount between about 0.02% and 0.40% by weight of the transparent thermoplastic resin.